

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-28. (Cancelled)
29. (New) A composition for the growth of apatite or dentine on tooth material, comprising
- (a) an alkaline medium,
 - (b) a first gel comprising gelatin and phosphate ions, and
 - (c) a medium containing calcium ions.
30. (New) The composition of claim 29, wherein the first gel further comprises at least one calcium phosphate compound.
31. (New) The composition of claim 29, further comprising
- (d) a second gel which is free of phosphate ions, which is capable of covering a first layer of gel with a layer of this second gel.
32. (New) The composition of claim 29, wherein the alkaline medium is an alkaline solution or an alkaline gel.
33. (New) The composition of claim 29, wherein the alkaline medium has a pH of 7.1 to 14.

34. (New) The composition of claim 29, wherein the alkaline medium comprises 0.05 to 1N NaOH.
35. (New) The composition of claim 29, wherein the alkaline medium further comprises calcium ions.
36. (New) The composition of claim 29, wherein the first gel is a gelatin-glycerol gel.
37. (New) The composition of claim 29, wherein the first gel further comprises fluoride ions.
38. (New) The composition of claim 29, wherein the first gel has a pH of 2.0 to 6.0.
39. (New) The composition of claim 30, wherein the calcium phosphate compound is selected from the group consisting of fluoroapatite, monetite, brushite, amorphous calcium phosphate, and hydroxylapatite.
40. (New) The composition of claim 30, wherein the calcium phosphate compound is fluoroapatite.
41. (New) The composition of claim 40, wherein the fluoroapatite is in the form of spherical particles.

42. (New) The composition of claim 30, wherein the first gel contains 5 to 30% by weight of calcium phosphate compounds.

43. (New) The composition of claim 42, wherein said calcium phosphate compounds are fluoroapatite particles.

44. (New) The composition of claim 30, wherein the first gel contains spherical particles of calcium phosphate compounds.

45. (New) The composition of claim 44, wherein said calcium phosphate compounds are spherical particles of fluoroapatite.

46. (New) The composition of claim 30, wherein the calcium phosphate compound comprises particles having an average size of 5 to 50 μm .

47. (New) The composition of claim 46, wherein the average size of said particles is 10 to 20 μm .

48. (New) The composition of claim 31, wherein the second gel is also free of fluoride ions.

49. (New) The composition of claim 31, wherein the second gel is selected from the group consisting of gelatin-glycerol gels, polysaccharide gels and carboxymethyl-cellulose gels.
50. (New) The composition of claim 29, wherein the medium containing calcium ions is a solution containing calcium ions or a gel containing calcium ions.
51. (New) The composition of claim 29, wherein the medium containing calcium ions has a pH of 6 to 8.
52. (New) The composition of claim 29, wherein said tooth material is human teeth or human tooth enamel.
53. (New) A kit for the growth of apatite or dentine on tooth material, comprising
- a) an alkaline medium,
 - b) a first gel which comprises gelatin and phosphate ions, and
 - c) a medium containing calcium ions.
54. (New) A process for the growth of apatite or dentine on tooth material, comprising the steps
- (i) treating said tooth material with an alkaline medium, thereafter
 - (ii) applying a first gel which comprises gelatin and phosphate ions to said tooth material, and thereafter

(iii) applying a medium containing calcium ions to said tooth material, wherein said application steps are effective in causing a building up of apatite on the surface of the tooth material.